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| MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004 | | | COE, SUSAN D | |
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

TECH CENTER 1600/2000

Paper No. 021104

Application Number: 09/863,439
Filing Date: May 24, 2001
Appellant(s): BEINDORFF ET AL.

Paul N. Kokulis
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed December 1, 2003.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

Art Unit: 1654

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct. In addition, there is an election of species in this application. Appellant's elected palm oil for the "B" component, sunflower oil for the "C" component, and apple skins for the source of the acids.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The claims stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

Art Unit: 1654

(9) Prior Art of Record

| | | |
|-----------|-------------|--------|
| 5,948,460 | KANG et al. | 9-1999 |
|-----------|-------------|--------|

| | | |
|-----------|-----------------|--------|
| 4,752,606 | SNYCKERS et al. | 6-1988 |
|-----------|-----------------|--------|

SU 827066 B; Abbasov et al. 1981.

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 2, 5-14, and 17-23 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 5,948,460 in view of US Pat. No. 4,752,606 and SU 827066.

US '460 teaches a composition containing oleanolic acid and ursolic acid. The acids can be derived from apples (see column 1, lines 63-65 and column 2, lines 17-20). The composition is used to improve the flavor of artificially flavored products (see column 3, lines 49-63).

The reference does not specifically teach adding the oleanolic acid and ursolic acid composition to a food that contains a glyceride, a palm oil, or a sunflower oil. However, the reference does teach that the acids can be added to any product that is artificially flavored including food and beverages (see column 4, line 30). Glycerides, palm oil, and sunflower oil are ingredients are well known food ingredients. A person of ordinary skill in the art would be motivated to add the oleanolic acid and ursolic acid composition to foods that contain these ingredients based on the teaching by the reference that the oleanolic acid and ursolic acid composition improves the flavor of foods. For this same reason it would be considered obvious to add the oleanolic acid and ursolic acid to a food spread composition.

The reference also does not teach that the oleanolic acid and ursolic acid have the same characteristics claimed by applicant. However, US '606 and SU '066 teach preparing oleanolic

Art Unit: 1654

acid and ursolic acid extracts in the same manner described by applicant on pages 6 and 7 of the specification (see English abstract of SU '066 and Example 1 of US '606). A person of ordinary skill in the art would recognize the benefits of using the high purity extracts taught by these references in the composition taught by US '460. Purity is a characteristic that is routinely optimized. Thus, a person of ordinary skill in the art would be motivated to use oleanolic acid and ursolic acid extracted in the manner taught by SU '066 and US '606 in the composition of US '460. Since the oleanolic acid and ursolic acid in the references are extracted in the same manner as the oleanolic acid and ursolic acid claimed by applicant, the reference oleanolic acid and ursolic acid would have to have the same characteristics as the claimed oleanolic acid and ursolic acid.

The references also do not specifically teach adding the ingredients in the amounts claimed by applicant. The amount of a specific ingredient in a composition is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient to add in order to best achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, this optimization of ingredient amount would have been obvious at the time of applicant's invention.

(11) *Response to Argument*

In regards to the 103(a) rejection, the appellant argues that none of the references are concerned with the "off taste" presented by ursolic and oleanolic acid. The appellant also argues

Art Unit: 1654

that there is no motivation to combine the references together or to add the ingredients in the amounts claimed by the appellant. In addition, the appellant argues that the references do not teach using a glyceride component with the characteristics specifically claimed by the appellant. Furthermore, the appellant argues that the art is not properly combinable because the references deal with ursolic and oleanolic acid extracted from different starting sources.

However, the art taken as a whole clearly teaches the claimed invention. US '460 teaches a composition that comprises ursolic and oleanolic acid. The reference teaches that these two acids can be present in ratios that meet the limitations of appellant's claim 1 (see Table 2). The two acids can be added to products in a large variety of amounts (see claims 3-5). The ursolic and oleanolic acid are taught as being either extracted from plant source or used a purified product (see column 3, last paragraph and column 4, Experiments 1 and 2). The reference specifically teaches that the composition of ursolic and oleanolic acid can be added to a variety of food and beverage products, anything that can benefit from artificial sweetener. Based on this teaching, a person of ordinary skill in the art would clearly understand that adding this product to foods containing the oils claimed by the appellant would be useful. Thus, US '460 is considered to teach an ursolic and oleanolic acid composition that is added to products that contain glycerides.

US '460 does not specifically teach that the ursolic and oleanolic acid used contain the flavor characteristics claimed by the appellant. In order to understand how to obtain ursolic and oleanolic acids with these specific characteristics, an artisan of ordinary skill has to rely on the appellant's disclosure. Pages 6 and 7 teach how to make the acids with the desired characteristics. The material that contains the ursolic and oleanolic acid is dissolved in an

Art Unit: 1654

organic solvent. Then the acids are recovered by crystallization. US '606 teaches purifying oleanolic acid by recrystallizing the acid from an aqueous solvent (see column 5, lines 9-11). SU '066 teaches the same method for purifying ursolic acid. Therefore, taking the prior art as a whole, US '460 teaches a composition of ursolic and oleanolic acid. US '606 and SU '066 provide teaching on how to make a more pure product of ursolic and oleanolic acid. Purity of ingredients is clearly a desirable feature of a composition. Thus, a person of ordinary skill in the art would be motivated to use ursolic and oleanolic acid prepared by recrystallization in the composition of US '460. This motivation stems from the known benefits of using high purity products in a composition.

While it is true that none of the references state that preparing the ursolic and oleanolic acid by recrystallization reduce the "off flavors" found in these acids, this does not make the claims patentable over the prior art. The appellant has simply recognized a feature that would be present in the prior art. It has been well established that the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Furthermore, the appellant argues that the art is not properly combinable because the references deal with ursolic and oleanolic acid extracted from different starting sources. However, these chemicals are the same chemicals despite their source. Since the chemicals are the same, a person of ordinary skill in the art would clearly recognize that extraction methods used by US '606 and SU '066 would work on any starting source for the acids. Thus, simply because the references use a different starting source would not dissuade a person of ordinary

Art Unit: 1654

skill in the art from using the methods of purification taught by SU '066 and US '606 to create ursolic and oleanolic acid for inclusion in the product of US '640.

In summary, US '460 is considered to teach a composition comprising ursolic and oleanolic acid. This reference teaches that this composition can be added to any food or beverage that can benefit from artificial sweeteners. The glycerides elected by appellant, palm and sunflower oil are extremely common ingredients in food. Thus, the reference is considered to teach adding ursolic and oleanolic acid to glyceride containing foods. In addition, the reference teaches that the ratio of oleanolic acid to ursolic acid in the composition can be varied. The amount of the oleanolic and ursolic acid composition can also be added to foods in a variety of amounts. US '606 and SU '066 teach creating high purity ursolic and oleanolic acid using the same method of making ursolic and oleanolic acid used by the appellant. This would lead to ursolic and oleanolic acids with the same characteristics claimed by the appellant. It would be obvious to substitute the ursolic and oleanolic acids of US '606 and SU '066 into the composition of US '460 because the artisan would create a better, more pure product. This would result in a product that has all of the characteristics claimed by the appellant.

For the above reasons, it is believed that the rejections should be sustained.


Art Unit: 1654

Respectfully submitted,

Susan D. Coe
February 23, 2004

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